

What is claimed is:

1. An OFDM reception apparatus comprising:

5 FFT processor for performing FFT processing on a
reception signal;

 a plurality of demodulator capable of performing
mutually different demodulation processes on the
FFT-processed reception signal; and

10 selector for selecting, among said plurality of
demodulator, a demodulator that should perform the
demodulation process on said FFT-processed reception
signal according to a factor that influences the quality
of a demodulated signal and letting the selected
demodulator perform the demodulation process.

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2. The OFDM reception apparatus according to claim 1,
wherein the selector uses a relationship between the
communication speed of one packet and channel variation
speed as a factor that influences the quality of the
20 demodulated signal.

3. The OFDM reception apparatus according to claim 1,
wherein the demodulation processes carried out by the
plurality of demodulator are coherent detection
25 processing or delay detection processing.

4. An OFDM transmission apparatus comprising:

 modulator for performing modulation processing

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corresponding to demodulation processing performed by an OFDM reception apparatus on a transmission signal; and

IFFT processor for performing IFFT processing on the modulated transmission signal,

said OFDM reception apparatus comprising:

FFT processor for performing FFT processing on a reception signal;

a plurality of demodulator capable of performing mutually different demodulation processes on the FFT-processed reception signal; and

selector for selecting, among said plurality of demodulator, a demodulator that should perform the demodulation process on said FFT-processed reception signal according to factor that influences the quality of a demodulated signal and letting the selected demodulator perform the demodulation process.

5. An OFDM communication apparatus equipped with an OFDM reception apparatus comprising:

FFT processor for performing FFT processing on a reception signal;

a plurality of demodulator capable of performing mutually different demodulation processes on the FFT-processed reception signal; and

selector for selecting, among said plurality of demodulator, a demodulator that should perform the demodulation process on said FFT-processed reception

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signal according to factor that influences the quality of a demodulated signal and letting the selected demodulator perform the demodulation process, and

an OFDM transmission apparatus comprising:

5 modulator for performing modulation processing corresponding to the demodulation processing performed by said OFDM reception apparatus on a transmission signal; and

10 IFFT processor for performing IFFT processing on the modulated transmission signal.

6. A communication terminal apparatus equipped with an OFDM communication apparatus, said OFDM communication apparatus including an OFDM reception apparatus
15 comprising:

FFT processor for performing FFT processing on a reception signal;

20 a plurality of demodulator capable of performing mutually different demodulation processes on the FFT-processed reception signal; and

selector for selecting, among said plurality of demodulator, a demodulator that should perform the demodulation process on said FFT-processed reception signal according to factor that influences the quality
25 of a demodulated signal and letting the selected demodulator perform the demodulation process, and

an OFDM transmission apparatus comprising:

modulator for performing modulation processing

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corresponding to the demodulation processing performed by said OFDM reception apparatus on a transmission signal; and

IFFT processor for performing IFFT processing on
5 the modulated transmission signal.

7. A base station apparatus equipped with an OFDM communication apparatus, said OFDM communication apparatus including an OFDM reception apparatus
10 comprising:

FFT processor for performing FFT processing on a reception signal;

a plurality of demodulator capable of performing mutually different demodulation processes on the
15 FFT-processed reception signal; and

selector for selecting, among said plurality of demodulator, a demodulator that should perform the demodulation process on said FFT-processed reception signal according to factor that influences the quality
20 of a demodulated signal and letting the selected demodulator perform the demodulation process, and

an OFDM transmission apparatus comprising:

modulator for performing modulation processing corresponding to the demodulation processing performed
25 by said OFDM reception apparatus on a transmission signal; and

IFFT processor for performing IFFT processing on the modulated transmission signal.

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8. An OFDM communication method comprising:

the FFT step of performing FFT processing on a reception signal; and

5 the demodulating step of performing, among a plurality of demodulation processes, a demodulation process corresponding to factor that influences the quality of a modulated signal.

10 9. The OFDM communication method according to claim 8, wherein the demodulating step uses a relationship between the communication speed of one packet and channel variation speed as a factor that influences the quality of the demodulates signal.

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